

1 **CLAIMS**

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3 1. A data communication system configured to communicatively link a

4 host device and a client device with a point-to-point data communication link, the

5 host device and the client device each configured for multipoint data

6 communication over a distributed network, the data communication system

7 comprising:

8 a data communication interface driver configured to communicatively link

9 with a data communication interface of the host device via the point-to-point data

10 communication link;

11 a virtual driver component configured to communicate with the data

12 communication interface driver and the client device; and

13 a virtual network configured to communicatively link the data

14 communication interface driver and the virtual driver component.

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16 2. A data communication system as recited in claim 1, wherein the data

17 communication interface driver is a Remote Network Driver Interface

18 Specification (NDIS) driver and the data communication interface is a Remote

19 NDIS component configured to communicate with the Remote NDIS driver via

20 the point-to-point data communication link.

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1 3. A data communication system as recited in claim 1, wherein the data
2 communication interface driver is a Remote Network Driver Interface
3 Specification (NDIS) driver and the data communication interface is a Remote
4 NDIS component configured to communicate Remote NDIS messages with the
5 Remote NDIS driver via the point-to-point data communication link.

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7 4. A data communication system as recited in claim 1, wherein the
8 virtual network is a local area network.

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10 5. A data communication system as recited in claim 1, wherein the data
11 communication interface driver is a Remote Network Driver Interface
12 Specification (NDIS) driver configured to communicate with the virtual driver
13 component via the virtual network.

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15 6. A data communication system as recited in claim 1, wherein the data
16 communication interface driver is a Remote Network Driver Interface
17 Specification (NDIS) driver configured to communicate Remote NDIS messages
18 with the virtual driver component via the virtual network.

1 7. A data communication system as recited in claim 1, wherein the data
2 communication interface driver is a Remote Network Driver Interface
3 Specification (NDIS) driver and the data communication interface is a Remote
4 NDIS component configured to communicate with the Remote NDIS driver via
5 the point-to-point data communication link, and the Remote NDIS driver is
6 configured to communicate with the virtual driver component via the virtual
7 network.

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9 8. A data communication system as recited in claim 1, wherein the data
10 communication interface driver is a Remote Network Driver Interface
11 Specification (NDIS) driver and the data communication interface is a Remote
12 NDIS component configured to communicate Remote NDIS messages with the
13 Remote NDIS driver via the point-to-point data communication link, and the
14 Remote NDIS driver is configured to communicate the Remote NDIS messages
15 with the virtual driver component via the virtual network.

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17 9. A data communication system as recited in claim 1, further
18 comprising a connection interface configured to couple the point-to-point data
19 communication link with the client device.

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21 10. A data communication system as recited in claim 1, further
22 comprising a Universal Serial Bus data communication interface configured to
23 couple the point-to-point data communication link with the client device.
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1 **11.** A data communication system as recited in claim 1, further
2 comprising a 1394 bus data communication interface configured to couple the
3 point-to-point data communication link with the client device.
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5 **12.** A data communication system as recited in claim 1, further
6 comprising a wireless data communication interface configured to couple the
7 point-to-point data communication link with the client device.
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9 **13.** A data communication system as recited in claim 1, further
10 comprising a Bluetooth data communication interface configured to couple the
11 point-to-point data communication link with the client device.
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13 **14.** A data communication system as recited in claim 1, further
14 comprising an infrared data communication interface configured to couple the
15 point-to-point data communication link with the client device.
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1 **15.** A data communication system configured to communicatively link
2 computing devices with a point-to-point data communication link, the data
3 communication system comprising:

4 one or more multipoint network data communication components designed
5 for data communication over a distributed network;

6 a connection interface configured to couple the one or more multipoint
7 network data communication components with a remote computing device; and

8 wherein the one or more multipoint network data communication
9 components are configured for point-to-point data communication with the remote
10 computing device.

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12 **16.** A data communication system as recited in claim 15, wherein the
13 one or more multipoint network data communication components includes a data
14 communication interface driver configured to communicatively link with a data
15 communication interface of the remote computing device via the point-to-point
16 data communication link.

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18 **17.** A data communication system as recited in claim 15, wherein the
19 one or more multipoint network data communication components includes a
20 Remote Network Driver Interface Specification (NDIS) driver configured to
21 communicatively link with a Remote NDIS component of the remote computing
22 device via the point-to-point data communication link.

1 **18.** A data communication system as recited in claim 15, wherein the
2 one or more multipoint network data communication components includes a
3 Remote Network Driver Interface Specification (NDIS) driver configured to
4 communicate Remote NDIS messages with a Remote NDIS component of the
5 remote computing device via the point-to-point data communication link.
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7 **19.** A data communication system as recited in claim 15, wherein the
8 connection interface is a point-to-point data communication protocol interface.
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10 **20.** A data communication system as recited in claim 15, wherein the
11 connection interface is a Universal Serial Bus data communication interface.
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13 **21.** A data communication system as recited in claim 15, wherein the
14 connection interface is a 1394 bus data communication interface.
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16 **22.** A data communication system as recited in claim 15, wherein the
17 connection interface is a wireless data communication interface.
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19 **23.** A data communication system as recited in claim 15, wherein the
20 connection interface is a Bluetooth data communication interface.
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22 **24.** A data communication system as recited in claim 15, wherein the
23 connection interface is an infrared data communication interface.
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1 **25.** A data communication system as recited in claim 15, wherein the
2 one or more multipoint network data communication components includes a data
3 communication interface driver and a virtual driver component, the data
4 communication interface driver configured to communicate with the virtual driver
5 component via a virtual network.
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7 **26.** A data communication system as recited in claim 15, wherein the
8 one or more multipoint network data communication components includes a
9 Remote Network Driver Interface Specification (NDIS) driver and a virtual driver
10 component, the Remote NDIS driver configured to communicate with the virtual
11 driver component via a virtual network.
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13 **27.** A data communication system as recited in claim 15, wherein the
14 one or more multipoint network data communication components includes a
15 Remote Network Driver Interface Specification (NDIS) driver and a virtual driver
16 component, the Remote NDIS driver configured to communicate Remote NDIS
17 messages with the virtual driver component via a virtual network.
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1 **28.** A data communication system as recited in claim 15, wherein the
2 one or more multipoint network data communication components includes a data
3 communication interface driver and a virtual driver component, the data
4 communication interface driver configured to communicatively link with a data
5 communication interface of the remote computing device via the point-to-point
6 data communication link, and the data communication interface driver further
7 configured to communicate with the virtual driver component via a virtual
8 network.

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10 **29.** A data communication system as recited in claim 15, wherein the
11 one or more multipoint network data communication components includes a
12 Remote Network Driver Interface Specification (NDIS) driver and a virtual driver
13 component, the Remote NDIS driver configured to communicatively link with a
14 Remote NDIS component of the remote computing device via the point-to-point
15 data communication link, and the Remote NDIS driver further configured to
16 communicate with the virtual driver component via a virtual network.

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18 **30.** A data communication system as recited in claim 15, wherein the
19 one or more multipoint network data communication components includes a
20 Remote Network Driver Interface Specification (NDIS) driver and a virtual driver
21 component, the Remote NDIS driver configured to communicate Remote NDIS
22 messages with a Remote NDIS component of the remote computing device via the
23 point-to-point data communication link, and the Remote NDIS driver further
24 configured to communicate the Remote NDIS messages with the virtual driver
25 component via a virtual network.

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2 **31.** A data communication system configured to communicatively link a
3 first device and a second device with a point-to-point data communication link, the
4 point-to-point data communication link configured with multipoint network data
5 communication components designed for data communication over a distributed
6 network.

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8 **32.** A method for implementing a point-to-point data communication
9 link between computing devices, the method comprising:

10 providing a network communication component designed for data
11 communication over a distributed network;

12 providing a connection interface to couple the network communication
13 component with a host computing device; and

14 providing a virtual network to communicatively link the network
15 communication component and a virtual driver component of a client computing
16 device.

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18 **33.** A method as recited in claim 32, wherein providing the network
19 communication component includes providing a data communication interface
20 driver to communicatively link with a data communication interface of the host
21 computing device via the point-to-point data communication link.

1 **34.** A method as recited in claim 32, wherein providing the network
2 communication component includes providing a Remote Network Driver Interface
3 Specification (NDIS) driver to communicatively link with a Remote NDIS
4 component of the host computing device via the point-to-point data
5 communication link.

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7 **35.** A method as recited in claim 32, wherein providing the network
8 communication component includes providing a Remote Network Driver Interface
9 Specification (NDIS) driver to communicate Remote NDIS messages with a
10 Remote NDIS component of the host computing device via the point-to-point data
11 communication link.

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13 **36.** A method as recited in claim 32, wherein providing the connection
14 interface includes providing a point-to-point data communication protocol
15 interface.

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17 **37.** A method as recited in claim 32, wherein providing the connection
18 interface includes providing a Universal Serial Bus data communication interface.

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20 **38.** A method as recited in claim 32, wherein providing the connection
21 interface includes providing a 1394 bus data communication interface.

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23 **39.** A method as recited in claim 32, wherein providing the connection
24 interface includes providing a wireless data communication interface.

1 **40.** A method as recited in claim 32, wherein providing the connection
2 interface includes providing a Bluetooth data communication interface.

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4 **41.** A method as recited in claim 32, wherein providing the connection
5 interface includes providing an infrared data communication interface.

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7 **42.** A method as recited in claim 32, wherein providing the virtual
8 network includes providing a virtual local area network.

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10 **43.** A method as recited in claim 32, wherein providing the network
11 communication component includes providing a Remote Network Driver Interface
12 Specification (NDIS) driver, and wherein providing the virtual network includes
13 providing a virtual local area network to communicate Remote NDIS messages
14 between the Remote NDIS driver and the virtual driver component.

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16 **44.** A method as recited in claim 32, wherein providing the network
17 communication component includes providing a Remote Network Driver Interface
18 Specification (NDIS) driver to communicate Remote NDIS messages with a
19 Remote NDIS component of the host computing device via the point-to-point data
20 communication link, and wherein providing the virtual network includes providing
21 a virtual local area network to communicate the Remote NDIS messages between
22 the Remote NDIS driver and the virtual driver component.

1 **45.** A method for communicating data between a host device and a
2 client device with a point-to-point data communication link, the client device
3 performing the method comprising:

4 coupling to the host device with a connection interface to establish the
5 point-to-point data communication link;

6 receiving data from a remotely located data communication interface; and

7 communicating the data from a data communication interface driver
8 designed for data communication over a distributed network via a virtual network
9 to a virtual driver component for the client device.

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11 **46.** A method as recited in claim 45, wherein coupling with the
12 connection interface includes coupling to the host device with a Universal Serial
13 Bus data communication interface.

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15 **47.** A method as recited in claim 45, wherein coupling with the
16 connection interface includes coupling to the host device with a 1394 bus data
17 communication interface.

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19 **48.** A method as recited in claim 45, wherein coupling with the
20 connection interface includes coupling to the host device with a wireless data
21 communication interface.

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23 **49.** A method as recited in claim 45, wherein coupling with the
24 connection interface includes coupling to the host device with a Bluetooth data
25 communication interface.

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2 **50.** A method as recited in claim 45, wherein coupling with the
3 connection interface includes coupling to the host device with an infrared data
4 communication interface.

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6 **51.** A method as recited in claim 45, wherein communicating includes
7 communicating the data via a virtual local area network.

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9 **52.** A method as recited in claim 45, wherein receiving includes
10 receiving Remote Network Driver Interface Specification (NDIS) messages from a
11 Remote NDIS component.

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13 **53.** A method as recited in claim 45, wherein receiving includes
14 receiving Remote Network Driver Interface Specification (NDIS) messages from a
15 Remote NDIS component, and wherein communicating includes communicating
16 the Remote NDIS messages from a Remote NDIS driver via the virtual network to
17 the virtual driver component.

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19 **54.** A method as recited in claim 45, wherein receiving includes
20 receiving Remote Network Driver Interface Specification (NDIS) messages from a
21 Remote NDIS component, and wherein communicating includes communicating
22 the Remote NDIS messages from a Remote NDIS driver via a virtual local area
23 network to the virtual driver component.
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1 **55.** One or more computer-readable media comprising computer-
2 executable instructions that, when executed, direct a computing system to perform
3 the method of claim 45.

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5 **56.** A method for communicating data between a host device and one or
6 more client devices with point-to-point data communication, the method
7 comprising:

8 a first client device:

9 coupling to the host device with a first client device connection
10 interface to establish a point-to-point data communication link between the
11 host device and the first client device;

12 receiving Remote Network Driver Interface Specification (NDIS)
13 messages from a Remote NDIS component of the host device;

14 communicating the Remote NDIS messages from a Remote NDIS
15 driver designed for data communication over a distributed network via a
16 virtual network to a virtual driver component for the first client device;

17 a second client device:

18 coupling to the host device with a second client device connection
19 interface to establish a point-to-point data communication link between the
20 host device and the second client device;

21 receiving the Remote NDIS messages from the Remote NDIS
22 component of the host device; and

23 communicating the Remote NDIS messages from a Remote NDIS
24 driver designed for data communication over a distributed network via a
25 virtual network to a virtual driver component for the second client device.

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2 **57.** A method as recited in claim 56, wherein coupling to the host device
3 with a first client device connection interface and coupling to the host device with
4 a second client device connection interface includes coupling to the host device
5 with a Universal Serial Bus data communication interface.
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7 **58.** A method as recited in claim 56, wherein coupling to the host device
8 with a first client device connection interface and coupling to the host device with
9 a second client device connection interface includes coupling to the host device
10 with a wireless data communication interface.
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